

IN THE CLAIMS

No claims have been amended, added, or canceled in the present paper.

1. (Previously Presented) In a mobile station, a method of facilitating the determination of Global Positioning System (GPS) location information without disrupting voice communications of a voice call involving the mobile station comprising the acts of:

causing GPS navigational-type data to be received through a wireless transceiver of the mobile station and stored in memory of the mobile station prior to voice communications of a voice call involving the mobile station;

receiving, through a user interface of the mobile station, a voice call request for a voice call by an end user;

in response to receiving the voice call request:

deriving GPS assistance data based on the stored GPS navigational-type data;

tuning the wireless transceiver to a GPS frequency to receive signals from a GPS system through the wireless transceiver;

prior to establishing the voice call, causing a GPS fix to be performed with the signals from the GPS system through the wireless transceiver using the GPS assistance data to thereby obtain GPS measurement data;

after the GPS fix is performed, retuning the wireless transceiver to signals of a wireless communication network, and causing the voice call for the voice call request to be established and maintained for the mobile station through the wireless communication network with the wireless transceiver; and

during the voice call, causing the GPS measurement data and a request for calculating a location of the mobile station to be transmitted to a location server in the wireless communication network for calculating the location of the mobile station based on the GPS measurement data.

2. (Original) The method of claim 1, wherein the voice call comprises a 911 emergency call.

3. (Original) The method of claim 1, wherein the act of causing the GPS navigational-type data to be received and stored in memory of the mobile station comprises the further acts of regularly causing the GPS navigational-type data to be received and stored in the memory during one or more time periods that the mobile station would have otherwise been in an idle mode of operation.

4. (Original) The method of claim 1, wherein the act of causing the GPS navigational-type data to be received comprises the further act of causing the GPS navigational-type data to be received from the location server.

5. (Canceled)

6. (Previously Presented) The method of claim 1, further comprising:
identifying a trigger signal indicative of the voice call request at the mobile station; and

wherein the act of identifying the trigger signal includes at least one of the following: identifying a detection of the mobile station being taken out of a holster, identifying a selection of a phone application of the mobile station, identifying a selection of one or more digits of a telephone number for the voice call, identifying a selection of entry of the telephone number for the voice call, and receiving the trigger signal from a personal computer (PC) or laptop.

7. (Original) The method of claim 1, further comprising:
identifying a phone number of the voice call; and
wherein the act of causing the GPS fix to be performed is contingent on the phone number of the voice call.

8. (Original) The method of claim 1, wherein the GPS navigational-type data comprises GPS ephemeris data and/or GPS almanac data.

9. (Original) The method of claim 1, wherein the GPS assistance data comprises at least one of: GPS satellite PseudoRandom Noise (PRN) code identifying data, Doppler frequency data, time delay window data, and bit contents of the GPS navigational data.

10. (Original) The method of claim 1, wherein the GPS measurement data comprises GPS pseudorange data.

11. (Original) The method of claim 1, wherein the location server includes a Position Determination Entity (PDE).

12. (Original) The method of claim 1, further comprising:
receiving the location of the mobile station from the location server through the wireless communication network.

13. (Previously Presented) The method of claim 1, further comprising:
refraining from causing a GPS fix to be performed during the voice communications of the voice call.

14. (Previously Presented) The method of claim 1, wherein the wireless communication network comprises a CDMA network and the wireless transceiver comprises a CDMA transceiver.

15. (Previously Presented) A mobile station, comprising:
a user interface;

a wireless receiver and transmitter;
one or more processors coupled to the wireless receiver and transmitter;
memory coupled to the one or more processors;
the one or more processors being operative to facilitate the determination of
Global Positioning System (GPS) location information of the mobile station by:
causing GPS navigational-type data to be received through the wireless
receiver and stored in the memory prior to voice communications of a voice call
involving the mobile station;
receiving, through the user interface, a voice call request for the voice call
by an end user;
in response to receiving the voice call request:
deriving GPS assistance data based on the GPS navigational-type
data;
tuning the wireless receiver to a GPS frequency to receive signals
from a GPS system through the wireless receiver;
prior to establishing the voice call: causing, with use of the
wireless receiver, a GPS fix to be performed with the signals from the
GPS system using the GPS assistance data to thereby obtain GPS
measurement data based on signals from the GPS system;
after the GPS fix is performed: retuning the wireless receiver to
signals of a wireless communication network and causing, with use of the
wireless receiver and transmitter, the voice call for the voice call request
to be established and maintained for the mobile station through the
wireless communication network in response to the voice call request; and
causing, during the voice call with use of the wireless transmitter,
the GPS measurement data and a request for calculating a location of the
mobile station to be transmitted to a location server in the wireless
communication network for calculating the location of the mobile station
based on the GPS measurement data.

16. (Original) The mobile station of claim 15, wherein the voice call comprises a 911 emergency call.

17. (Original) The mobile station of claim 15, wherein the causing of the GPS navigational-type data to be received and stored in the memory is performed on a regular basis during one or more time periods that the mobile station would have otherwise been in an idle mode of operation.

18. (Original) The mobile station of claim 15, wherein the causing of the GPS navigational-type data to be received comprises causing the GPS navigational-type data to be received from the location server through the wireless communication network.

19. (Previously Presented) The mobile station of claim 15, further comprising:

identifying a trigger signal indicative of the voice call request at the mobile station; and

wherein the act of identifying the trigger signal includes at least one of the following: identifying a detection of the mobile station being taken out of the holster, identifying a selection of a phone application of the mobile station, identifying a selection of one or more digits of a telephone number for the voice call, identifying a selection of entry of the telephone number for the voice call, and receiving the trigger signal from a personal computer (PC) or laptop.

20. (Original) The mobile station of claim 15, wherein the one or more processors are further operative to:

identify a phone number of the voice call; and

wherein the act of performing the GPS fix is contingent on the phone number of the voice call.

21. (Previously Presented) In a mobile station, a method of facilitating the determination of Global Positioning System (GPS) location information without disrupting voice communications of a voice call involving the mobile station, the method comprising the acts of:

identifying, through a user interface of the mobile station, a trigger signal indicative of a request to terminate a voice call which is maintained for the mobile station over a wireless communication network using a wireless transceiver;

in response to identifying the trigger signal indicative of the request to terminate the voice call:

tuning the wireless transceiver to a GPS frequency to receive signals from a GPS system through the wireless transceiver;

causing a GPS fix to be performed with the signals from the GPS system using GPS assistance data to thereby obtain GPS measurement data;

after the GPS fix, retuning the wireless transceiver to signals of the wireless communication network, and causing the GPS measurement data and a request for calculating a location of the mobile station to be transmitted through the wireless transceiver to a location server in the wireless communication network for calculating the location of the mobile station based on the GPS measurement data; and

causing the voice call to be terminated responsive to the trigger signal indicative of the request to terminate the voice call.

22. (Original) The method of claim 21, wherein the voice call comprises a 911 emergency call.

23. (Original) The method of claim 21, further comprising:

causing the GPS assistance data to be received in response to identifying the trigger signal.

24. (Previously Presented) The method of claim 21, further comprising:
refraining from causing a GPS fix to be performed during the voice communications of the voice call.

25. (Previously Presented) The method of claim 21, wherein the wireless transceiver comprises a CDMA transceiver.

26. (Original) The method of claim 21, further comprising:
identifying a phone number of the voice call; and
wherein the acts of causing a GPS fix and causing the GPS measurement data to be transmitted before ending the voice call is contingent on the phone number for the voice call.

27. (Original) The method of claim 21, wherein the trigger signal is based on an actuation of an END key.

28. (Previously Presented) A mobile station, comprising:
a user interface;
a wireless receiver and transmitter;
one or more processors coupled to the wireless receiver and transmitter;
memory coupled to the one or more processors;
the one or more processors being operative to facilitating the determination of Global Positioning System (GPS) location information for the mobile station without disrupting voice communications of a voice call involving the mobile station by:
identifying, through the user interface, a trigger signal indicative of a request to terminate the voice call which is maintained for the mobile station over a wireless communication network using the wireless receiver and transmitter;

in response to identifying the trigger signal indicative of the request to terminate the voice call:

tuning the wireless receiver to a GPS frequency to receive signals from a GPS system through the wireless receiver;

causing a GPS fix to be performed with the signals from the GPS system using GPS assistance data, to thereby obtain GPS measurement data;

after the GPS fix, retuning the wireless transceiver to signals of the wireless communication network, and causing the GPS measurement data and a request for calculating a location of the mobile station to be transmitted through the wireless transceiver to a location server in the wireless communication network for calculating the location of the mobile station based on the GPS measurement data; and

causing the voice call to be terminated responsive to the trigger signal indicative of the request to terminate the voice call.

29. (Original) The mobile station of claim 28, wherein the voice call comprises a 911 emergency call.

30. (Original) The mobile station of claim 28, wherein the one or more processors are further operative for:

causing the GPS assistance data to be received in response to identifying the trigger signal.

31. (Previously Presented) The mobile station of claim 28, wherein the one or more processors are further operative for:

refraining from causing a GPS fix to be performed during the voice communications of the voice call.

32. (Original) The mobile station of claim 28, wherein at least a portion of the same wireless receiver is utilized for performing the GPS fix and maintaining the voice call.

33. (Original) The mobile station of claim 28, wherein the one or more processors are further operative for:

identifying a phone number of the voice call; and

wherein the acts of causing the GPS fix and causing the GPS measurement data to be transmitted before ending the voice call is contingent upon the phone number for the voice call.

34. (Original) The mobile station of claim 28, wherein the trigger signal is based on an actuation of an END key at the user interface.